Appl. No. 09/527,634 Amdt. dated February 13, 2004 Reply to Office Action of November 13, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

AI

1. (currently amended) A universal asynchronous receiver transmitter (UART) comprising:

a first-in, first-out (FIFO) buffer;

a shift register coupled to said FIFO buffer;

a serial transmission line, coupled to said shift register for connecting to a remote processor;

a circuit for detecting a last word transmitted from said FIFO buffer over said serial transmission line;

a transmitter empty circuit for generating a control signal, relating to the availability of said serial transmission line to receive data, on a control line when a last word transmitted from said FIFO buffer is detected;

a delay circuit for delaying generation of said control signal for a programmable delay time related to transmission characteristics of said serial transmission line; and a programmable register for setting said programmable delay time.

- 2. (previously presented) The UART of claim 1 wherein said control signal is triggered from a stop bit of said last word.
- 3. (previously presented) The UART of claim 1 wherein said programmable register comprises a shadow register which is a write-only register with the same address as a read-only register only read by a user.
- 4. (previously presented) The UART of claim 3 wherein said write-only register comprises the first four bits of a modem status register.
- 5. (original) The UART of claim 1 wherein said programmable register is a four bit register.

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6. (previously presented) The UART of claim 1 further comprising:
a plurality of channels, each channel having said FIFO buffer, said circuit for detecting a last word and said transmitter empty circuit; and

said delay circuit and said programmable register being a single circuit and register connected to control the delay of said control signal for each of said channels.

7. (previously presented) A universal asynchronous receiver transmitter (UART) comprising:

a first-in, first-out (FIFO) buffer;

a shift register coupled to said FIFO buffer;

a serial transmission line, coupled to said shift register for connecting to a remote processor;

a circuit for detecting a last word transmitted from said shift register over said serial transmission line;

a transmitter empty circuit for generating an RTS signal on an RTS control line when a last word transmitted from said shift register is detected, wherein said RTS signal is triggered from a stop bit of said last word;

a delay circuit for delaying generation of said RTS signal for a programmable delay time;

a programmable register for setting said programmable delay time, wherein said programmable register comprises a shadow register which is a write-only register with the same address as a read-only register only read by a user;

a plurality of channels, each channel having said FIFO buffer, said circuit for detecting a last word and said transmitter empty circuit; and

said delay circuit and said programmable register being a single circuit and register connected to control the delay of said RTS signal for each of said channels.

- 8. (previously presented) The UART of claim 7 wherein said write-only register comprises the first four bits of a modem status register.
- 9. (previously presented) The UART of claim 7 wherein said programmable register is a four bit register.

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- 10. (previously presented) The UART of claim 7 further comprising at least eight of said channels.
- 11. (previously presented) The UART of claim 2 wherein said stop bit is detected in said shift register.
- 12. (previously presented) The UART of claim 1 wherein said control signal is an RTS signal.
- 13. (currently amended) A universal asynchronous receiver transmitter (UART) comprising:

a first-in, first-out (FIFO) buffer;

a shift register coupled to said FIFO buffer;

a serial transmission line, coupled to said shift register for connecting to a remote processor;

a circuit for detecting a last word transmitted from said shift register over said serial transmission line;

a transmitter empty circuit for generating a control signal, relating to the availability of said serial transmission line to receive data, on a control line when a last word transmitted from said shift register is detected;

a delay circuit for delaying generation of said control signal for a programmable delay time related to transmission characteristics of said serial transmission line; and a programmable register for setting said programmable delay time.